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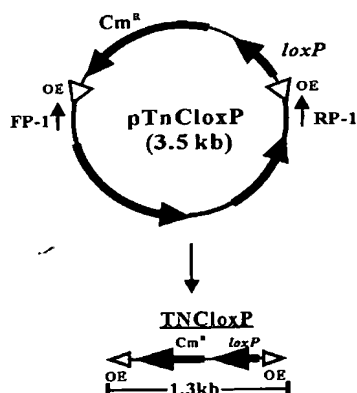
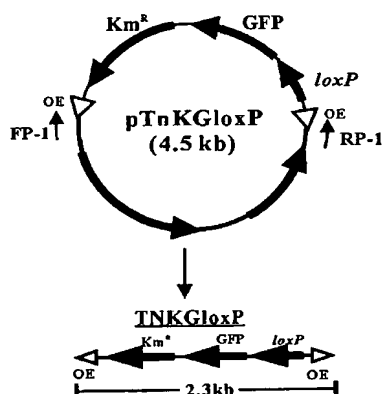
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(54) Title: CONSTRUCTION OF NOVEL STRAINS CONTAINING MINIMIZING GENOME BY Tn5-COUPLED Cre/loxP EXCISION SYSTEM



(57) Abstract: Disclosed is a method for developing novel strains deleted specific chromosome sites, using transposon and Cre/loxP site-specific recombination by Cre expression vector, wherein the transposon comprises a selectable marker and loxP site. The method comprises the steps of: (1) preparing a transposon comprising a selectable marker and loxP site; (2) inserting the transposon into an optional position of microbial chromosome, and determining the inserted site; (3) integrating two transposons comprising a different selectable marker to one chromosome; (4) deleting a chromosomal site between the two lox sites by introducing a Cre expression vector into the chromosome of step (3); and (5) repeating steps (3 and 4) for the mutant deleted a part of chromosome, to shorten the chromosome of mutant gradually.



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